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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,812	10/29/2003	Christina Bock	11341-1	6759

7590 06/05/2007

J. Wayne Anderson
National Research Council of Canada
Bldg. M-58, Room EG-12
1200 Montreal Road
Ottawa, ON K1A 0R6
CANADA

EXAMINER	
HENDRICKSON, STUART L	

ART UNIT	PAPER NUMBER
1754	

MAIL DATE	DELIVERY MODE
06/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/694,812	BOCK ET AL.	
	Examiner	Art Unit	
	Stuart Hendrickson	1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-15 and 17-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-15 and 17-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. Part of the text of claim 9 is missing. The strikethrough in claim 18 is missing. These must be corrected in the next response.

Claims 1, 4-10 and 20 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Laine et al. 6551960.

The reference teaches in columns 2-4 and 8 Pt and Ru on a support, with nanosized metal clusters, and a similar synthesis using ethylene glycol and heating. While the catalyst is not identically described, no differences are seen due to the similarity of the methods. The overlapping size of column 8 renders the claims unpatentable. While the claimed Pt:Ru is not exemplified, it is unpatentable due to the range taught in col. 2. Concerning claim 5, 66% or so is exemplified, which is not considered patentably distinct versus the claimed 70%. Concerning claim 4, note claim 28 of the patent which includes 90% Pt.

Claims 1, 4-15, 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laine taken with Wang article.

Laine does not teach the synthesis. Wang teaches on pg. 1623 in particular how to make Pt, Ru nanoparticles using ethylene glycol and alkali. The pH, if not inherently possessed, is an obvious expedient to assure metal deposition. Using the synthesis of Wang in the process of Laine is an obvious expedient as a way to make the nanoparticles desired by Laine. The examiner takes Official Notice that the techniques not explicitly disclosed (spraying of claim 13 for example) are old and known to put metals on supports, and are hence obvious as expedients to make the material desired by Laine.

Claims 1, 4-7, 9, 11-15, 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoster article taken with Wang.

Hoster teaches on pg. 498 PtRu of 75:25. While not teaching the particle size, Wang teaches a synthesis of Pt and Ru nanoparticles. Using the synthesis of Wang to make the materials of

Hoster is an obvious expedient to make the desired nanoparticles; both references are interested in the catalyst properties of metal particles (Hoster mentions fuel cells and Wang teaches visible-light hydrogen evolution).

Applicant's arguments filed 5/23/07 have been fully considered but they are not persuasive.

Laine clearly teaches Ru-Pt bimetallic catalysts and has an extended discussion of particle sizes of the metals and indicates they can be of the present size. Laine also has XRD photos as is enabled. No difference is seen in the metal phases, and experimental data should be presented. The discussion of Wang in the specification is noted, but the claims do not exclude the features argued as necessary in Wang. The preponderance of evidence, throughout the record, is that no difference exists in the particle size of the metals.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (571) 272-1351.

Stuart Hendrickson
examiner Art Unit 1754